

A reliable supply of high quality water is fundamental to securing drinking water for all Californians, maintaining agricultural productivity, and supporting a vibrant and diverse economy. Headwaters — from the Cascades, the Sierra Nevada, the coastal ranges and mountain foothills, and to the numerous ranges of the San Bernardino and Cleveland National Forests — contribute to achieving this imperative for the State. However, if better managed, they could do much more.

Ultimately, managing California's headwaters is integral to optimizing the water supplies that nature provides. Increasing water yield and quality; reducing the risk and impacts of catastrophic wildfire; and enhancing natural features and functions; are all benefits to be derived, locally and statewide, from improved headwaters stewardship. Enhancing the resiliency and adaptability of headwaters is overdue.

California can no longer afford to relegate management of its headwaters to the margin.

Local water management agencies / districts, working cooperatively with appropriate stakeholders, including state and federal resource agencies, should pursue headwaters management strategies consistent with the following principles that have been adopted by ACWA's Board of Directors.

IMPROVED PLANNING, COORDINATION AND IMPLEMENTATION

- 1. California needs to implement strategies that emphasize the resiliency and sustainability of California's headwaters.
- 2. Headwaters improvement and management strategies need to recognize that "one size does not fit all" and must account for variability among these areas throughout the State, and even within a particular watershed.
- 3. State and federal land and resource management agencies, in consultation with stakeholders, should increase coordination and integration as they plan and implement efforts to improve stewardship of California's headwaters.
- 4. Local communities' priorities, knowledge and expertise should be addressed and used to the greatest extent feasible when developing and implementing management strategies for headwater areas.
- 5. Projects and management practices designed to improve headwaters should yield benefits to local and downstream communities, and environmental resources that use water from the headwaters.
- 6. Planning and/or permitting processes on public and private lands should ensure that land-use proposals in the headwaters adequately assess potential significant adverse impacts on water supply and quality and minimize or mitigate those impacts.



www.acwa.com

April 2013

MANAGING HEADWATERS' RESOURCES

- 7. The natural infrastructure of the headwaters and the engineered water infrastructure throughout the State are too often considered unrelated and instead should be managed in an integrated manner.
- 8. Public and private landowners and resource managers should be encouraged and assisted in efforts to improve water quality and water supply reliability through headwaters stewardship.
- 9. Landowners and resource managers should be encouraged and assisted to manage and improve the resiliency of the natural features of the headwaters.
- 10. To maintain the integrity and improve the resiliency of the headwaters, public and private landowners and resource managers should implement actions that reduce the risk of catastrophic wildfire which also may reduce the adverse effects of such fires, including deleterious impacts on water supply and water quality.
- 11. Forest management tools as such forest thinning, biomass removal and controlled burns that reduce fuel loading, and consequently, the risk of catastrophic wildfires should be utilized to the extent feasible, taking into account other resources objectives, including water management, and public health and safety. Federal and state regulations that limit such efforts should be reassessed to better accommodate these management tools.
- 12. The U.S. Forest Service must reaffirm and commit to the charge Congress gave it in the Organic Act of 1897 "to improve and protect the forest within [and for] securing favorable water flows", and revise its policies and management practices necessary to prioritize and achieve those mandated goals.

RESEARCH

- 13. State and federal resource and land management agencies, in cooperation with academic institutions, water agencies/districts, the private sector and non-government organizations, should develop a prioritized applied research and monitoring program to gather data and design models to improve headwaters management and enhance resource services, particularly those related to water supply and quality.
- 14. Research and strategies to improve headwaters should be based on the best available science that is, to the greatest degree feasible, peer reviewed.
- 15. Headwaters research programs should engage in the field testing of research hypotheses that may improve the resiliency and sustainability of California's headwaters and consequently, may contribute to improved water supply reliability and water quality.
- 16. State and federal land and resource management agencies, in collaboration with private and public stakeholders, should pursue research to assess the impacts of climate change on headwaters. They should determine the resource benefits the headwaters currently provide, create models to assess the impacts of climate change on these resources and develop strategies to adapt to those impacts.

FINANCING HEADWATERS IMPROVEMENTS

- 17. It is imperative that Congress provide direction and appropriations to the Department of the Interior and the Department of Agriculture for the development and implementation of programs to enhance the health and resiliency of federally-managed headwaters to improve the supply and quality of water originating on federal lands.
- 18. The State has historically underinvested in headwaters stewardship. Future general obligation bonds should contribute funding to restore, manage and protect California's headwaters to provide the statewide public benefits associated with healthy and resilient headwaters.
- 19. Private landowners should receive assistance in terms of education and information, technical expertise and incentives (e.g. tax credits, conservation easements, development agreements, etc.) to encourage their commitment to long-term protection and enhancement of headwaters on their property.

